

Title (en)  
SINGLE STAGE ENGINE BLEED

Title (de)  
EINSTUFIGE MOTORENTLÜFTUNG

Title (fr)  
PURGE DE MOTEUR À ÉTAGE UNIQUE

Publication  
**EP 3473545 A1 20190424 (EN)**

Application  
**EP 18211422 A 20140618**

Priority  

- US 201361868408 P 20130821
- EP 14837464 A 20140618
- US 2014043028 W 20140618

Abstract (en)  
An environmental control system (200) is provided. The environmental control system may receive pressurized air from a single supply line (220). A pressure regulating turbomachine (230) may be located within the supply line. A motor-generator (232) may be coupled to the pressure regulating turbomachine. In response to a pressure in the supply line being less than a desired pressure in the environmental control system, the motor-generator (232) may supply energy to the pressure regulating turbomachine, causing the pressure regulating turbomachine to function as a compressor. In response to a pressure in the supply line being greater than a desired pressure in the environmental control system, the pressure regulating turbomachine may function as a turbine and supply energy to the motor-generator.

IPC 8 full level  
**B64D 13/06** (2006.01); **F02C 6/08** (2006.01); **F02C 7/32** (2006.01); **F02C 9/18** (2006.01)

CPC (source: EP US)  
**B64D 13/06** (2013.01 - EP US); **F02C 6/08** (2013.01 - EP US); **F02C 9/18** (2013.01 - US); **B64D 2013/0618** (2013.01 - EP US); **B64D 2013/0644** (2013.01 - EP US); **B64D 2013/0648** (2013.01 - EP US); **Y02T 50/50** (2013.01 - EP US)

Citation (applicant)  

- US 6058715 A 20000509 - STRANG JAMES E [US], et al
- US 5956960 A 19990928 - NIGGEMAN RICHARD E [US]

Citation (search report)  

- [XYI] US 6058715 A 20000509 - STRANG JAMES E [US], et al
- [Y] US 5956960 A 19990928 - NIGGEMAN RICHARD E [US]
- [A] US 5967461 A 19991019 - FARRINGTON FRANKLIN D [US]
- [A] WO 0123724 A2 20010405 - ALLIED SIGNAL INC [US]
- [A] US 2010314877 A1 20101216 - FINNEY ADAM M [US]
- [A] EP 1283166 A2 20030212 - HONEYWELL NORMALAIR GARRETT [GB]
- [XI] US 2006231680 A1 20061019 - DEROUINEAU JEAN-LUC [US], et al

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**WO 2015026432 A1 20150226**; EP 3036161 A1 20160629; EP 3036161 A4 20160803; EP 3036161 B1 20190102; EP 3473545 A1 20190424; EP 3473545 B1 20211027; US 10071806 B2 20180911; US 2016107754 A1 20160421

DOCDB simple family (application)  
**US 2014043028 W 20140618**; EP 14837464 A 20140618; EP 18211422 A 20140618; US 201514944479 A 20151118